### **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/572, 796
Source:	TEWP
Date Processed by STIC:	03/30/2006

# ENTERED

#### CRF Errors Edited by the STIC Systems Branch

Serial	Number: 10/572, 796	CRF Edit Date: $\frac{03/30/200}{DA}$
	Realigned nucleic acid/amino acid numbe text "wrapped" to the next line	ers/text in cases where the sequence
	Corrected the SEQ ID NO. Sequence number	mbers edited were:
<u></u>	Inserted or corrected a nucleic number at NO's edited:	t the end of a nucleic line. SEQ ID
	Deleted: invalid beginning/end-of-file	e text ; page numbers
	Inserted mandatory headings/numeric id	entifiers, specifically:
	Moved responses to same line as heading	numeric identifier, specifically:
	Other: Correled the &	pelling of (Astificial)



**IFWP** 

RAW SEQUENCE LISTING

DATE: 03/30/2006 TIME: 10:06:43

PATENT APPLICATION: US/10/572,796

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

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4 <110> APPLICANT: Steinkuhler, Christian
     5
            Lahm, Armin
     6
             Pallaoro, Michele
            Nardella, Caterina
     9 <120> TITLE OF INVENTION: SYNTHETIC HEPARANASE MOLECULES AND USES
     10
             THEREOF
     12 <130> FILE REFERENCE: ITR0060YP
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/572,796
C--> 14 <141> CURRENT FILING DATE: 2006-03-21
    14 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/010517
     15 <151> PRIOR FILING DATE: 2004-09-17
     17 <150> PRIOR APPLICATION NUMBER: 60/537,729
     18 <151> PRIOR FILING DATE: 2004-01-20
     20 <150> PRIOR APPLICATION NUMBER: 60/506,479
     21 <151> PRIOR FILING DATE: 2003-09-26
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     25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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     29 <212> TYPE: DNA
     30 <213> ORGANISM: Artificial Sequence
     32 <220> FEATURE:
     33 <223> OTHER INFORMATION: PCR Primer
     35 <400> SEQUENCE: 1
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     38 <210> SEQ ID NO: 2
     39 <211> LENGTH: 24
     40 <212> TYPE: DNA
     41 <213> ORGANISM: Artificial Sequence
     43 <220> FEATURE:
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     46 <400> SEQUENCE: 2
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     50 <211> LENGTH: 48
     51 <212> TYPE: DNA
     52 <213> ORGANISM: Artificial Sequence
     54 <220> FEATURE:
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     61 <211> LENGTH: 51
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A STATE OF THE STA

72

RAW SEQUENCE LISTING DATE: 03/30/2006
PATENT APPLICATION: US/10/572,796 TIME: 10:06:43

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

- 62 <212> TYPE: DNA
- 63 <213> ORGANISM: Artificial Sequence
- 65 <220> FEATURE:
- 66 <223> OTHER INFORMATION: PCR Primer
- 68 <400> SEQUENCE: 4
- 69 aagacagact tcctaatttt cgatcccaaa aagttcaaga acagcaccta c 51
- 71 <210> SEQ ID NO: 5
- 72 <211> LENGTH: 57
- 73 <212> TYPE: DNA
- 74 <213> ORGANISM: Artificial Sequence
- 76 <220> FEATURE:
- 77 <223> OTHER INFORMATION: PCR Primer
- 79 <400> SEQUENCE: 5
- 80 ctaattttcg atcccaagaa ggaaggtagc ggttccggct ctaaaaagtt caagaac 57
- 82 <210> SEQ ID NO: 6
- 83 <211> LENGTH: 87
- 84 <212> TYPE: DNA
- 85 <213> ORGANISM: Artificial Sequence
- 87 <220> FFATURE:
- 86 <223> OTHER INFORMATION: PCR Primer
- 90 <400> SEQUENCE: 6
- 91 ctaattttcg atcccaagaa ggaaggtagc ggcgctggat caggggcagc aggatccggc 60
- 92 qccaaaaaqt tcaaqaacaq cacctac 8'
- 94 <210> SEQ ID NO: 7
- 95 <211> LENGTH: 72
- 96 <212> TYPE: DNA
- 97 <213> ORGANISM: Artificial Sequence
- 99 <220> FEATURE:
- 100 <223> OTHER INFORMATION: PCR Primer
- 102 <400> SEQUENCE: 7
- 103 acctttgaag agagaagtta ctggggttca ggggcaggat ccggcgccga atggccctac 60
- 104 caggagcaat tg
- 106 <210> SEQ ID NO: 8
- 107 <211> LENGTH: 8
- 108 <212> TYPE: PRT
- 109 <213> ORGANISM: Artificial Sequence
- 111 <220> FEATURE:
- 112 <223> OTHER INFORMATION: Peptide
- 114 <400> SEQUENCE: 8
- 115 Trp Ala Phe Lys Asp Lys Pro Thr
- 116 1
- 119 <210> SEQ ID NO: 9
- 120 <211> LENGTH: 69
- 121 <212> TYPE: DNA
- 122 <213> ORGANISM: Artificial Sequence
- 124 <220> FEATURE:
- 125 <223> OTHER INFORMATION: PCR Primer
- 127 <400> SEQUENCE: 9
- 128 acctttgaag agagaagtta ctgggccttc aaggacaaga cccccgaatg gccctaccag 60

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

69 129 gagcaattg 131 <210> SEQ ID NO: 10 132 <211> LENGTH: 15 133 <212> TYPE: PRT 134 <213> ORGANISM: Artificial Sequence 136 <220> FEATURE: 137 <223> OTHER INFORMATION: Peptide 139 <400> SEQUENCE: 10 140 Glu Gly Ser Gly Ser Glu Asn Leu Tyr Phe Gln Gly Ser Gly Gly 141 1 144 <210> SEQ ID NO: 11 145 <211> LENGTH: 63 146 <212> TYPE: DNA 147 <213> ORGANISM: Artificial Sequence 149 <220> FEATURE: 150 <223> OTHER INFORMATION: PCR Primer 152 <400> SEQUENCE: 11 153 ggcagcggat ctgagaacct gtacttccag ggttccggtt caacctttga agagagaagt 60 154 tac-A 196 A 156 <210> SEQ 10 NO: 12 157 <211> LENGTH: 16 158 <212> TYPE: PRT 159 <213> ORGANISM: Artificial Sequence 161 <220> FEATURE: 162 <223 > OTHER INFORMATION: Peptide 164 <400> SEQUENCE: 12 165 Gln Gly Ser Gly Ser Glu Asn Leu Tyr Phe Gln Gly Ser Gly Ser Lys 166 1 10 169 <210> SEQ ID NO: 13 170 <211> LENGTH: 66 171 <212> TYPE: DNA 172 <213> ORGANISM: Artificial Sequence 174 <220> FEATURE: 175 <223> OTHER INFORMATION: PCR Primer 177 <400> SEQUENCE: 13 178 tctggatccg gtgaaaatct ctattttcag ggctcaggaa gtaaaaagtt caagaacagc 60 179 acctac 181 <210> SEQ ID NO: 14 182 <211> LENGTH: 17 183 <212> TYPE: PRT 184 <213> ORGANISM: Artificial Sequence 186 <220> FEATURE: 187 <223> OTHER INFORMATION: Peptide 189 <400> SEQUENCE: 14 190 Glu Pro Asn Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile Asn Gly Ser 191 1 192 Gln 196 <210> SEQ ID NO: 15 197 <211> LENGTH: 74

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

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47.44

4

RAW SEQUENCE LISTING DATE: 03/30/2006
PATENT APPLICATION: US/10/572,796 TIME: 10:06:43

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

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254 Lys Leu Arg Val Tyr Leu His Cys Thr Asn Thr Asp Asn Pro Arg Tyr
                               280
256 Lys Glu Gly Asp Leu Thr Leu Tyr Ala Ile Asn Leu His Asn Val Thr
                            295
258 Lys Tyr Leu Arg Leu Pro Tyr Pro Phe Ser Asn Lys Gln Val Asp Lys
                       310
                                           315
260 Tyr Leu Leu Arg Pro Leu Gly Pro His Gly Leu Leu Ser Lys Ser Val
                                       330
                   325
262 Gln Leu Asn Gly Leu Thr Leu Lys Met Val Asp Asp Gln Thr Leu Pro
                                   345
    340
264 Pro Leu Met Glu Lys Pro Leu Arg Pro Gly Ser Ser Leu Gly Leu Pro
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265 355
266 Ala Phe Ser Tyr Ser Phe Phe Val Ile Arg Asn Ala Lys Val Ala Ala
267 370
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268 Cys Ile
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277 <220> FEATURE:
278 <223> OTHER INFORMATION: hep 106
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                                   25
285 Ala Gln Ala Gln Asp Val Val Asp Leu Asp Phe Phe Thr Gln Glu Pro
                               40
287 Leu His Leu Val Ser Pro Ser Phe Leu Ser Val Thr Ile Asp Ala Asn
                            55
289 Leu Ala Thr Asp Pro Arg Phe Leu Ile Leu Leu Gly Ser Pro Lys Leu
291 Arg Thr Leu Ala Arg Gly Leu Ser Pro Ala Tyr Leu Arg Phe Gly Gly
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293 Thr Lys Thr Asp Phe Leu Ile Phe Asp Pro Lys Lys Phe Lys Asn Ser
                                   105
295 Thr Tyr Ser Arg Ser Ser Val Asp Val Leu Tyr Thr Phe Ala Asn Cys
296 115
                               120
297 Ser Gly Leu Asp Leu Ile Phe Gly Leu Asn Ala Leu Leu Arg Thr Ala
                           135
299 Asp Leu Gln Trp Asn Ser Ser Asn Ala Gln Leu Leu Leu Asp Tyr Cys
                       150
                                           155
301 Ser Ser Lys Gly Tyr Asn Ile Ser Trp Glu Leu Gly Asn Glu Pro Asn
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303 Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile Asn Gly Ser Gln Leu Gly
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VERIFICATION SUMMARY

DATE: 03/30/2006

PATENT APPLICATION: US/10/572,796

TIME: 10:06:45

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03302006\J572796.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

# Raw Sequence Listing before editing, for reference only



IFWP

RAW SEQUENCE LISTING DATE: 03/29/2006
PATENT APPLICATION: US/10/572,796 TIME: 09:49:42

Input Set : A:\ITR0060YP SEQLIST.TXT
Output Set: N:\CRF4\03292006\J572796.raw

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4 <110> APPLICANT: Steinkuhler, Christian
            Lahm, Armin
             Pallaoro, Michele
            Nardella, Caterina
     9 <120> TITLE OF INVENTION: SYNTHETIC HEPARANASE MOLECULES AND USES
     10
             THEREOF
    12 <130> FILE REFERENCE: ITR0060YP
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/572,796
                                                                 Does Not Comply
                                                                 Corrected Diskette Needed
C--> 14 <141> CURRENT FILING DATE: 2006-03-21
     14 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/010517
     15 <151> PRIOR FILING DATE: 2004-09-17
                                                                       (P5-1)
     17 <150> PRIOR APPLICATION NUMBER: 60/537,729
     18 <151> PRIOR FILING DATE: 2004-01-20
     20 <150> PRIOR APPLICATION NUMBER: 60/506,479
     21 <151> PRIOR FILING DATE: 2003-09-26
    23 <160> NUMBER OF SEQ ID NOS: 44
    25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
                             7 deleted
     27 <210> SEQ ID NO: 1
    28 <211> LENGTH: 40
    29 <212> TYPE: DNA
C--> 30 <213> ORGANISM: Partificial Sequence
     32 <220> FEATURE:
     33 <223> OTHER INFORMATION: PCR Primer
     35 <400> SEQUENCE: 1
                                                                          40
     36 cgggatccgc cgcaccatgc tgctgcgctc gaagcctgcg
     38 <210> SEQ ID NO: 2
     39 <211> LENGTH: 24
     40 <212> TYPE: DNA
     41 <213> ORGANISM: Artificial Sequence
     43 <220> FEATURE:
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     46 <400> SEQUENCE: 2
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     47 tcagatgcaa gcagcaactt tggc
    49 <210> SEQ ID NO: 3
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     51 <212> TYPE: DNA
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     54 <220> FEATURE:
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     57 <400> SEOUENCE: 3
     58 ctaattttcg atcccaagaa ggaaaaaaag ttcaagaaca gcacctac
                                                                          48
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Input Set : A:\ITR0060YP SEQLIST.TXT
Output Set: N:\CRF4\03292006\J572796.raw

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128 acctttgaag agagaagtta ctgggccttc aaggacaaga cccccgaatg gccctaccag 60

Input Set : A:\ITR0060YP SEQLIST.TXT
Output Set: N:\CRF4\03292006\J572796.raw

69 129 gagcaattg 131 <210> SEQ ID NO: 10 132 <211> LENGTH: 15 133 <212> TYPE: PRT 134 <213> ORGANISM: Artificial Sequence 136 <220> FEATURE: 137 <223> OTHER INFORMATION: Peptide 139 <400> SEQUENCE: 10 140 Glu Gly Ser Gly Ser Glu Asn Leu Tyr Phe Gln Gly Ser Gly Gly 141 1 5 10 144 <210> SEQ ID NO: 11 145 <211> LENGTH: 63 146 <212> TYPE: DNA 147 <213> ORGANISM: Artificial Sequence 149 <220> FEATURE: 150 <223> OTHER INFORMATION: PCR Primer 152 <400> SEQUENCE: 11 153 ggcagcggat ctgagaacct gtacttccag ggttccggtt caacctttga agagagaagt 60 154 tac 156 <210> SEQ ID NO: 12 157 <211> LENGTH: 16 158 <212> TYPE: PRT 159 <213> ORGANISM: Artificial Sequence 161 <220> FEATURE: 162 <223> OTHER INFORMATION: Peptide 164 <400> SEQUENCE: 12 165 Gln Gly Ser Gly Ser Glu Asn Leu Tyr Phe Gln Gly Ser Gly Ser Lys 166 1 10 169 <210> SEQ ID NO: 13 170 <211> LENGTH: 66 171 <212> TYPE: DNA 172 <213> ORGANISM: Artificial Sequence 174 <220> FEATURE: 175 <223> OTHER INFORMATION: PCR Primer 177 <400> SEQUENCE: 13 178 tctggatccg gtgaaaatct ctattttcag ggctcaggaa gtaaaaagtt caagaacagc 60 179 acctac 181 <210> SEQ ID NO: 14 182 <211> LENGTH: 17 183 <212> TYPE: PRT 184 <213> ORGANISM: Artificial Sequence 186 <220> FEATURE: 187 <223> OTHER INFORMATION: Peptide 189 <400> SEQUENCE: 14 190 Glu Pro Asn Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile Asn Gly Ser 10 191 1 192 Gln 196 <210> SEQ ID NO: 15 197 <211> LENGTH: 74

Input Set : A:\ITR0060YP SEQLIST.TXT
Output Set: N:\CRF4\03292006\J572796.raw

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               20
206 Asp Pro Arg Phe Leu Ile Leu Gly Ser Pro Lys Leu Arg Thr Leu
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                                40
208 Ala Arg Gly Leu Ser Pro Ala Tyr Leu Arg Phe Gly Gly Thr Lys Thr
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210 Asp Phe Leu Ile Phe Asp Pro Lys Lys Glu
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214 <210> SEQ ID NO: 16
215 <211> LENGTH: 386
216 <212> TYPE: PRT
217 <213> ORGANISM: Human
219 <400> SEQUENCE: 16
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               2.0
                                    25
224 Ala Leu Leu Arg Thr Ala Asp Leu Gln Trp Asn Ser Ser Asn Ala Gln
226 Leu Leu Leu Asp Tyr Cys Ser Ser Lys Gly Tyr Asn Ile Ser Trp Glu
                            55
228 Leu Gly Asn Glu Pro Asn Ser Phe Leu Lys Lys Ala Asp Ile Phe Ile
                                            75
230 Asn Gly Ser Gln Leu Gly Glu Asp Phe Ile Gln Leu His Lys Leu Leu
232 Arg Lys Ser Thr Phe Lys Asn Ala Lys Leu Tyr Gly Pro Asp Val Gly
234 Gln Pro Arg Arg Lys Thr Ala Lys Met Leu Lys Ser Phe Leu Lys Ala
                                120
           115
236 Gly Gly Glu Val Ile Asp Ser Val Thr Trp His His Tyr Tyr Leu Asn
                            135
238 Gly Arg Thr Ala Thr Arg Glu Asp Phe Leu Asn Pro Asp Val Leu Asp
                        150
                                            155
240 Ile Phe Ile Ser Ser Val Gln Lys Val Phe Gln Val Val Glu Ser Thr
                    165
                                        170
242 Arg Pro Gly Lys Lys Val Trp Leu Gly Glu Thr Ser Ser Ala Tyr Gly
                180
                                    185
244 Gly Gly Ala Pro Leu Leu Ser Asp Thr Phe Ala Ala Gly Phe Met Trp
                                200
246 Leu Asp Lys Leu Gly Leu Ser Ala Arg Met Gly Ile Glu Val Val Met
                            215
248 Arg Gln Val Phe Phe Gly Ala Gly Asn Tyr His Leu Val Asp Glu Asn
                        230
                                            235
250 Phe Asp Pro Leu Pro Asp Tyr Trp Leu Ser Leu Leu Phe Lys Lys Leu
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Input Set : A:\ITR0060YP SEQLIST.TXT
Output Set: N:\CRF4\03292006\J572796.raw

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254	Lvs	Leu	Arg	Val	Tvr	Leu	His	Cvs	Thr	Asn	Thr	Asp	Asn	Pro	Arq	Tyr
255	-1-		275		-			280				-	285		,	-
	Lvs	Glu		Asp	Leu	Thr	Leu	Tvr	Ala	Ile	Asn	Leu	His	Asn	Val	Thr
257	_,,	290	<b>0</b> -1				295	-1-				300				
	Lvs		Len	Ara	Leu	Pro	Tyr	Pro	Phe	Ser	Asn		Gln	Val	Asp	Lvs
259	-	- / -	200			310	-1-				315					320
		T.e.11	T.e.11	Δra	Pro		Gly	Pro	His	Glv		Len	Ser	Lvs	Ser	
261	+ 1 -	шец	шец		325		<b>0</b> -1			330				-1-	335	
	Gln	T.e.11	Δen	Glv		Thr	Leu	Lvs	Met		Asp	Asp	Gln	Thr		Pro
263	GIII	пси	Abii	340	шси		ЦСС	<b>1</b>	345	, 41	пор	шр	0	350		
	Dro	Τ.Δ11	Mot		Lvc	Pro	Leu	Δra		Glv	Ser	Ser	Len		Len	Pro
265	PIO	пец	355	Giu	цуз	FIO	пси	360	110	OLY	DCI	DCI	365	019	ДСС	110
	ת [ ת	Dho		Тиг	Car	Dhe	Phe		т1Д	Δrα	Δen	Δla		Val	Δla	Δla
267	Ala	370	261	ı yı	Der	FIIC	375	Val	110	nr 9	ASII	380	цуз	vai	1114	1114
	Cys						212					500				
	-	116														
269		) - CI	70 TI	NO.	. 17											
				ONO												
				4: 49	72											
	<212				7	fia	:-1 (	omi.	220							
	<221				ALU.	LIIC.	ial S	seque	snce							
							,		_							
						LION	: her	) TO	)							
280	<400	)> SI	EQUE	NCE:	1.7		-			Dro	Dro	Dro	Lou	Mot	Leu	T.011
280 281	<400 Met	)> SI	EQUE	NCE:	17 Ser		ner Pro				Pro	Pro	Leu	Met		Leu
280 281 282	<400 Met 1	)> SI Leu	EQUE! Leu	NCE: Arg	17 Ser 5	Lys	Pro	Ala	Leu	10					15	
280 281 282 283	<400 Met 1	)> SI Leu	EQUE! Leu	NCE: Arg Pro	17 Ser 5	Lys	-	Ala	Leu Ser	10				Pro	15	
280 281 282 283 284	<400 Met 1 Leu	)> SI Leu Leu	EQUE Leu Gly	NCE: Arg Pro 20	17 Ser 5 Leu	Lys Gly	Pro Pro	Ala Leu	Leu Ser 25	10 Pro	Gly	Ala	Leu	Pro 30	15 Arg	Pro
280 281 282 283 284 285	<400 Met 1 Leu	)> SI Leu Leu	EQUEN Leu Gly Ala	NCE: Arg Pro 20	17 Ser 5 Leu	Lys Gly	Pro	Ala Leu Asp	Leu Ser 25	10 Pro	Gly	Ala	Leu Thr	Pro 30	15 Arg	Pro
280 281 282 283 284 285 286	<400 Met 1 Leu Ala	D> SI Leu Leu Gln	EQUENT Leu Gly Ala 35	NCE: Arg Pro 20 Gln	1.7 Ser 5 Leu Asp	Lys Gly Val	Pro Pro Val	Ala Leu Asp 40	Leu Ser 25 Leu	10 Pro Asp	Gly Phe	Ala Phe	Leu Thr 45	Pro 30 Gln	15 Arg Glu	Pro Pro
280 281 282 283 284 285 286 287	<400 Met 1 Leu Ala	D> SI Leu Leu Gln His	EQUENT Leu Gly Ala 35	NCE: Arg Pro 20 Gln	1.7 Ser 5 Leu Asp	Lys Gly Val	Pro Pro Val Ser	Ala Leu Asp 40	Leu Ser 25 Leu	10 Pro Asp	Gly Phe	Ala Phe Thr	Leu Thr 45	Pro 30 Gln	15 Arg Glu	Pro Pro
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VERIFICATION SUMMARY

DATE: 03/29/2006 TIME: 09:49:43

PATENT APPLICATION: US/10/572,796

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Output Set: N:\CRF4\03292006\J572796.raw

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

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